

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Makoto HIRATA et al.

Serial No.: 09/581086

Art Unit: Unknown

Filed: June 9, 2000

Examiner: Unknown

For: PROCESS FOR PREPARING BUTANETRIOL DERIVATIVE

**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner of Patents  
Washington, DC 20231


Sir:

As a means of complying with the duty of disclosure, submitted herewith is Form PTO-1449, which cites relevant references, available copies of which are provided, hereby, as appropriate under the rules. Relevance of the cited references is explained in the International Search Report (copy attached) or in the instant specification.

No fee is required, as the instant IDS is filed before the mailing date of the initial action on the merits.

Respectfully submitted,

By:

  
\_\_\_\_\_  
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September 19, 2000  
WEP:jam

Sheet 1 of 1

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

LIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: September 18, 2000

ATTY DOCKET NO.:

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SERIAL NO.:

09/581086

APPLICANT: Makoto HIRATA et al.

FILING DATE: June 9, 2000

GROUP: Unknow

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,541,347	7-30-96	FAUL et al.			
	5,710,145	1-20-98	Engel et al.			

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
JP09-047296	2-18-97	JAPAN (abstract)			X
JP04-149151		JAPAN (abstract)			X
JP07-215977	8-15-95	JAPAN			
JP08-512030	12-17-96	JAPAN			
EP 657411	6-14-95	EUROPE			

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	CHARKRABORTY, Tushar K.; HUSSAIN, Azhar K.; JOSHI, Subodh P., "Stereocontrolled total synthesis of 9(R)-N-BOC-Ahda methylester", Chem. Lett. 1992, No. 12, p. 2385-2388

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP99/00355

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>6</sup> C07C43/178, C07C41/16, C07C41/26, C07C309/65, C07C303/28,  
C07F7/18, C07B53/00 // C07M7:00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>6</sup> C07C43/178, C07C41/16, C07C41/26, C07C309/65, C07C303/28,  
C07F7/18, C07B53/00 // C07M7:00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CAPLUS (STN), REGISTRY (STN)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	JP, 7-215977, A (Eli Lilly and Co.), 15 August, 1995 (15. 08. 95) & EP, 657458, A1 & EP, 735038, A1	1, 22-24 2-21
X A	EP, 657411, A1 (ELI LILLY AND COMPANY), 14 June, 1995 (14. 06. 95) & JP, 7-238044, A	1, 22-24 2-21
X A	US, 5710145, A (Eli Lilly and Company), 20 January, 1998 (20. 01. 98) (Family: none)	1, 22-24 2-21
A	JP, 8-512030, A (Merrell Pharmaceuticals Inc.), 17 December, 1996 (17. 12. 96) & EP, 705264, A1 & WO, 95/00515, A1	5
X	CHARKRABORTY, Tushar K.; HUSSAIN, Azhar K.; JOSHI, Subodh P., "Stereocontrolled total synthesis of 9(R)-N-BOC-Ahda methylester", Chem. Lett. 1992, No. 12, p,2385-2388	22

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not  
considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is  
cited to establish the publication date of another citation or other  
special reason (as specified)"O" document referring to an oral disclosure, use, exhibition or other  
means"P" document published prior to the international filing date but later than  
the priority date claimed"T" later document published after the international filing date or priority  
date and not in conflict with the application but cited to understand  
the principle or theory underlying the invention"X" document of particular relevance; the claimed invention cannot be  
considered novel or cannot be considered to involve an inventive step  
when the document is taken alone"Y" document of particular relevance; the claimed invention cannot be  
considered to involve an inventive step when the document is  
combined with one or more other such documents, such combination  
being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search  
23 April, 1999 (23. 04. 99)Date of mailing of the international search report  
11 May, 1999 (11. 05. 99)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

# **Notice of References Cited**

Application/Control No.

09/581,086

Applicant(s)/Patent Under  
Reexamination  
HIRATA ET AL.

Examiner

Rosalynd Keys

Art Unit

1621

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## **U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5665877	09-1997	Faul et al.	540/469
	B	US-6015807	01-2000	Engel et al.	514/183
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

## **FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

## **NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	Faul et al., Macrocyclic Bisindolylmaleimides: Synthesis by Inter- and Intramolecular Alkylation, J. Org. Chem., March 1998, American Chemical Society, Vol. 63, No. 6, pages 1961-1973.
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

*R. Keys 7/17/02*